

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-35 are currently pending in the present application, Claims 2, 4, and previously withdrawn Claims 28-35 having been canceled without prejudice or disclaimer by way of the present amendment, and Claims 1, 5, 6, 13, 14, 18, 19, and 27 having been amended by way of the present amendment. No new matter has been added.¹

In the outstanding Office Action, the declaration was indicated as defective; the drawings were objected to; the title of the invention was objected to; the abstract was objected to; Claims 1, 3, and 7-13 were rejected under 35 U.S.C. § 112, second paragraph; Claims 3, 5, 12-13, 17-18, and 27 were rejected under 35 U.S.C. § 112, first paragraph; Claims 1, 3 and 7-13 were rejected under 35 U.S.C. § 102(b) as anticipated by Kobayashi, et al. (U.S. Pat. No. 6,331,969, hereinafter “Kobayashi”); Claims 2, 4, 14-15, and 19-24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi in view of Miyamori, et al. (U.S. Pat. No. 6,025,946, hereinafter “Miyamori”); Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi and Miyamori in view of Walsh (U.S. Pat. No. 6,480,072, hereinafter “Walsh”); Claims 16 and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi and Miyamori in view of Richter, et al. (U.S. Pat. Pub. No. 2006/0072396, hereinafter “Richter”); Claims 17 and 26 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi and Miyamori in view of Kobayashi (U.S. Pat. No. 6,219,322, hereinafter “Kobayashi ‘322”); and Claims 18 and 27 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi and Miyamori in view of Kobayashi (Japanese Pat. No. 11-191218, hereinafter “Kobayashi ‘218”).

¹ Support for the amendments to Claims 1, 13, 14, 18, 19, and 27 is found in original Claims 2 and 4 and in the specification at least on pages 12 and 13.

The Office indicated the declaration as defective on the ground that both the “Yes” and “No” boxes, claiming priority to Japanese Application 2004-021658, were checked. Although it is believed that the declaration is not defective, it is respectfully noted that an Application Data Sheet claiming priority to Japanese Application 2004-021658 was filed contemporaneously with the declaration. Accordingly, in view of MPEP §602.01, it is submitted that, to the extent that the declaration is defective, the Application Data Sheet corrects that deficiency.

Regarding the objection to the drawings, Applicant respectfully submits that each and every feature of the invention specified in the claims is shown in the drawings. For example, as described at page 14, lines 9-12, of Applicant’s specification, “the pseudo-random number generating circuit 23 comprises a linear feedback shift register (LFSR) for generating a pseudo-random number sequence as an M sequence.” As seen in Applicant’s Fig. 4, and as described in the paragraph bridging pages 14 and 15, “the M-sequence random number data MS represents a sequence of pseudo-random numbers indicative of a repetition of identical patterns at the period of 588 channel clock pulses (the period of one frame).” Further, Fig. 10 shows pit shapes of an optical disc. As described at page 40, lines 13-22, the pit width is reduced at a position which is spaced a predetermined distance from the edge of a pit. Indeed, as shown in FIG. 10(A), the pit width of a pit having a certain length or greater may be reduced at the center of the pit, or as shown in FIG. 10(B), the pit width of a pit having a certain length or greater may be increased at the center of the pit, or as shown in FIG. 10(C), the disc ID code may be recorded in three values by locally increasing and reducing the pit width. Thus, the features identified on page 3 of the outstanding Office Action are submitted to be present in the drawings. Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn.

The title and the specification have been amended to overcome the objections thereto, as set forth on page 4 of the outstanding Office Action. Thus, the objections to the title and the specification are believed to have been overcome.

Regarding the objection to the abstract, the abstract has been amended as requested, placing the abstract in conformance with the guidelines stated in M.P.E.P. § 608.01(b).

Regarding the rejection of Claims 1, 3, and 7-13 under 35 U.S.C. § 112, second paragraph, Applicant respectfully submits that these claims have been amended to address the rejection as set forth on page 5 of the outstanding Office Action. Accordingly, rejection of Claims 1, 3, and 7-13 under 35 U.S.C. § 112, second paragraph, is believed to have been overcome.

Regarding the rejection of Claims 3, 5, 12-13, 17-18, and 27 under 35 U.S.C. § 112, first paragraph, it is respectfully submitted that Claims 12 and 17, Claims 13, 18, and 27, and Claims 3 and 5 find support at least in Applicant's Figs. 10, and in the specification, as seen in at least the following paragraphs, which have been reproduced below for the Office's convenience.

In the first embodiment described above, the pit width of pits whose lengths are equal to or greater than the period of 7T is changed to record the disc ID code. According to the present invention, however, if the reproducing system has a sufficient margin for jitter of the reproduced signal, then the pit width of pits whose lengths are equal to or greater than the period of 6T may be changed to record the disc ID code.

In the first embodiment described above, the pit width is reduced at a position which is spaced a predetermined distance from the edge of a pit. However, as shown in FIG. 10(A), the pit width of a pit having a certain length or greater may be reduced at the center of the pit, or as shown in FIG. 10(B), the pit width of a pit having a certain length or greater may be increased at the center of the pit, or as shown in FIG. 10(C), the disc ID code may be recorded in three values by locally increasing and reducing the pit width.

Alternatively, as shown in FIG. 10(D), the pit width of a pit may be changed over a length which is greater than the length corresponding to the period of one channel clock pulse.

Alternatively, the reflectance of the information recording surface may locally be changed at a location that is spaced a predetermined distance from the edge of a pit or a mark, based on a signal produced by modulating auxiliary information with a sequence of pseudo-random number data and a toggle signal, for thereby changing the recorded trace of the pit or the mark to record the auxiliary information (see Japanese Patent Laid-open No. Hei 11-191218).

The AND circuit 282 is supplied with the latched output signals from the respective eight latch circuits 281A to 281H. The latched output signal from the final latch circuit 281H is inverted in logic level and then supplied to the AND circuit 282. The AND circuit 282 outputs an ANDed signal produced by ANDing the latched signals that are supplied parallel thereto. When the EFM signal S2 observed in terms of the period of the channel clock pulses CK has a succession of seven logic levels "1", i.e., when a pit having a length corresponding to 7T or more where T represents the basic period of the EFM signal S2 is to be formed, the AND circuit 282 outputs an ANDed signal having a logic level "1".

Compliance with the written description requirement of Section 112 only requires that appellant's application contain sufficient disclosure, expressly or inherently, to make it clear to persons skilled in the art that appellant possessed the subject matter claimed. *In re Mott*, 539 F.2d 1291, 1297, 190 USPQ 536, 541 (CCPA 1976). The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession of the claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. *In re Kaslow*, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

Given the illustration above, it is respectfully submitted that Claims 3, 5, 12-13, 17-18, and 27 are fully supported by the original claims and by the specification, and that the

disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession of the claimed subject matter. Thus, the 35 U.S.C. §112, first paragraph, rejection should be removed.

Claim 1 recites “a counter configured to count channel clock pulses output from a phase lock loop circuit, the counter being cleared by a frame clock pulse output from a synchronous detecting circuit, the counter supplying the most significant bit of the counter value as a toggle signal to an exclusive-OR circuit.”

The outstanding Office Action cited “counter circuit 33” of Miyamori as corresponding to the previously claimed “counter.” At best, Miyamori describes at col. 16, lines 1-9, that “counter circuit 33 comprises a counter of 2 bits, and increments its count value one by one at the timing of the transmission channel clock supplied from the transmission channel clock generating circuit 12....” Further, the “most significant bit (MSB) or the least significant bit (LSB) of the count value of the counter circuit 33 is supplied to the other input terminal of the EXOR gate 34 or 35.” However, Miyamori does not disclose or suggest “a counter configured to count channel clock pulses output from a phase lock loop circuit, the counter being cleared by a frame clock pulse output from a synchronous detecting circuit, the counter supplying the most significant bit of the counter value as a toggle signal to an exclusive-OR circuit,” as recited in Claim 1.

M.P.E.P. § 2143.03 requires, to establish a case of *prima facie* obviousness, that all words in a claim must be considered in judging the patentability of the claim against the prior art. Further, M.P.E.P. § 2123 I states that a reference may be relied on for all it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments.

Therefore, Applicant respectfully submits that Kobayashi and Miyamori do not anticipate or render obvious the features of Claim 1. Therefore, independent Claim 1 (and

the claims dependent therefrom) are believed to patentably define over Kobayashi and Miyamori.

Independent Claims 13, 14, and 19, while differing in scope and statutory class from Claim 1, patentably define over Kobayashi and Miyamori for substantially the same reasons as Claim 1. Accordingly, it is respectfully submitted that Kobayashi and Miyamori do not anticipate or render obvious the features of independent Claims 13, 14, and 19. Therefore, independent Claims 13, 14, and 19 (and the claims dependent therefrom) are believed to patentably define over the applied references.

Independent Claims 18 and 27, while differing in scope and statutory class from Claim 1, patentably define over Kobayashi, Miyamori and Kobayashi '218 for substantially the same reasons as Claim 1. As noted above, Kobayashi and Miyamori do not disclose or suggest "a counter configured to count channel clock pulses output from a phase lock loop circuit, the counter being cleared by a frame clock pulse output from a synchronous detecting circuit, the counter supplying the most significant bit of the counter value as a toggle signal to an exclusive-OR circuit." Claim 18 recites a corresponding method step. Indeed, Kobayashi '218 does not cure this deficiency. Accordingly, it is respectfully submitted that Kobayashi, Miyamori and Kobayashi '218 do not anticipate or render obvious the features of independent Claims 18 and 27. Therefore, independent Claims 18 and 27 (and the claims dependent therefrom) are believed to patentably define over the applied references.

With regard to the rejection of Claims 15 and 20-24 as unpatentable over Kobayashi in view of Miyamori, it is noted that Claims 15 and 20-24 are dependent from Claim 14 or 19, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Kobayashi does not cure any of the above-noted deficiencies of Miyamori. Accordingly, it is respectfully submitted that Claims 15 and 20-24 are patentable over Kobayashi and Miyamori.

With regard to the rejection of Claim 6 as unpatentable over Kobayashi in view of Miyamori and further in view of Walsh, it is noted that Claim 6 is dependent from Claim 1, and thus is believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Walsh does not cure any of the above-noted deficiencies of Kobayashi and Miyamori. Accordingly, it is respectfully submitted that Claim 6 is patentable over Kobayashi, Miyamori and Walsh.

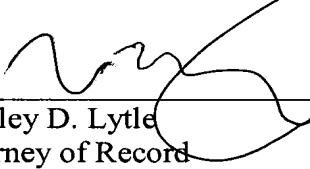
With regard to the rejection of Claims 16 and 25 as unpatentable over Kobayashi and Miyamori in view of Richter, it is noted that Claims 16 and 25 are dependent from Claims 14 or 19, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Richter does not cure any of the above-noted deficiencies of Kobayashi and Miyamori. Accordingly, it is respectfully submitted that Claims 16 and 25 are patentable over Kobayashi, Miyamori, and Richter.

With regard to the rejection of Claims 17 and 26 as unpatentable over Kobayashi and Miyamori in view of Kobayashi ‘322, it is noted that Claims 17 and 26 are dependent from Claims 14 or 19, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Kobayashi ‘322 does not cure any of the above-noted deficiencies of Kobayashi and Miyamori. Accordingly, it is respectfully submitted that Claims 17 and 26 are patentable over Kobayashi, Miyamori, and Kobayashi ‘322.

Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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